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STEM ADVISORY COUNCIL BROADBAND COMMITTEE

Co-Chair John Carver, Superintendent, Howard-Winneshiek Community School District
Co-Chair Robert von Wolffradt, Chief Information Officer, State of Iowa
Amy Kuhlers, Program Manager, Connect Iowa
Robert Denson, President, Des Moines Area Community College
Dave Duncan, President, Iowa Telecommunication Association
Philip Groner, Iowa Communication Network
Karl Hehr, Director of Technology Services, Ames Community Schools District
Galen Howsare, Chief Financial Officer, Iowa Association of School Boards
Karen Randall, Keystone Area Education Association
Michael Sadler, CenturyLInk, Assistant VP for Public Policy
Larry Siegel, Iowa School Finance and Information System Services
Jeff Weld, Executive Director, Governor's STEM Advisory Council
Josh Byrnes, State Representative, District 14
Steven Sodders, State Senator, District 36

STEM ADVISORY COUNCIL BROADBAND COMMITTEE

Meeting Minutes
November 8, 2013, 9:00 – 10:30
Iowa Utilities Board, 1375 E Court Ave, Des Moines, IA
Conference Room 1-2

Committee Members Present:

John Carver	Robert von Wolffradt
Galen Howsare	Phillip Groner
Amy Kuhlers	Michael Sadler
Dave Duncan	Jeff Weld (via phone)
Karl Hehr (via phone)	Karen Randall (via phone)
Josh Byrnes (via phone)	Steve Sodders (via phone)

Committee Members Absent:

Rob Denson	Larry Siegel

Other Attendees:

Steve Siegel, Wapello County Supervisor	Thomas Lampe, Dept. of Public Safety
Don Miller, NW Tele. Coop. Assoc.	Keri Schatz, Howard-Winneshiek CSD
Wayne Clinton, Story County Supervisor	Sheila Navis, Rural IA Ind. Tel. Assoc.
Dave Lingren, ICN	Will Walling, Iowa Network Services
Mary Gaskill, Iowa Legislature	David Barajas, OEDC
Meaghan Framke, OEDC	Bill Heckroth, ISAC
Beth Canuteson, AT&T	Robin Harlow, ISAC
Adam Gregg, Iowa Governor's Office	Scott Weiser, Windstream Comm.
John Stineman, ICA, HTA	Suzanne Smith, Iowa Utilities Board
Rob Smith, Fiber Utilities	Bill Garcia, Windstream
Sue Shipitalo	

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Other Attendees (via phone):

Jim Bogner, Iowa DPS   Art Spies, Iowa Hospital Association

Charles Bruggemann, Windstream Comm.

I.   **Call to Order and Introductions:**

Meeting called to order at 9:00 by Co-Chair, Carver. Committee members and guest attendees offered introductions.

II.   **Approval of 11-08-13 Agenda:**

Members present unanimously approved meeting agenda.

III.   **Approval of 10-22-13 Minutes:**

Members present unanimously approved minutes from the previous meeting.

IV.   **Committee Overview of 11-08-13 Agenda – Current status, expectations, deliverables:**

Carver provided an overview for the committee on discussions held to-date, and next steps to consider moving forward. Today's meeting will be last opportunity for the committee to hear face-to-face stakeholder input, although public comments can still be made through the website. Committee will now start to look at emerging themes and starting to draft policies, in order to make December commitment.

V.   **Stakeholder Comments:**

a.   Phil Groner and Ric Lumbard, Iowa Communications Network (See also, posted comments)

Groner discussed the current role of the ICN relative to the committee's mission and proposed an option that would accomplish two directives: 1) accomplishes some of the goals in terms of enhancing public/private partnerships, and 2) provides a deliverable action item for the Governor and legislature to consider.

Lumbard discussed the offer the ICN would like the committee to consider in their recommendations to the Governor.

   i.   ICN is the administrator of Iowa's fiber optic network: They provide secure data network services for DPS, Homeland Security, education, government, and healthcare. They are not looking to expanding that role. Current network has 3,400 miles of owned assets and 52,000 miles of network secured by exchange of value with private sector, and are connected to all 99 counties in Iowa. They are not everywhere, but are in some places where others are not, so do have infrastructure in places that are underserved or unreached by other broadband sources.

   ii.   Public/Private Partnership: ICN was designed around this concept from the beginning, with partnerships with carriers to provide maintenance services. They wouldn't have products in the state if not for the public/private partnerships with the private sector, and want to expand this

component. Would like to see if there is a way to strengthen partnerships by allowing the private sector access by way of fair and equitable procurement policies to provide access to routes and potential bandwidth.

iii. Recent Network Upgrade: Just completed a 36 month, $25 million infrastructure upgrade. Currently have a 40-100GB backbone with extended reach of 10GB to all 99 counties. They provide at least 1GB of dedicated access to selective users at a minimum. They are now serving all Area Education Agencies with at least 10GB access to serve the education community.

   1. Carver: who are the 'selective users'? Lumbard: anywhere BTOP grant was able to provide access – community anchor institutions (healthcare, government, schools, etc.). They could build out to those areas, then go to private sector and ask to be provided access to those CAI institutions, and all were served with the 1GB minimum. There are some areas they were unable to upgrade for several reasons. But they have upgraded the majority of access points across Iowa.

They have the ability to turn up additional capacity because of upgrade. In the future, looking at possibility of releasing bandwidth into the state at a wider level, they could go up to 400GB on the core links that go around the state of Iowa.

iv. Offer: They are in specific locations that could provide middle mile access to areas where there might not be access, but are not proposing that they serve residents or businesses, those are areas the private sector needs to serve. This is just one definition of how a public/private partnership could assist in the broadband solution. Do not feel there is adequate middle mile access in the state, but are not looking to compete, but to complement the broadband solution in Iowa.

   1. ICN 2.0:
      a. State will offer up a significant percentage of the ICN unused bandwidth as a wholesale asset for the private sector.
      b. State will partner with private sector to operate the middle mile fiber route, by making asset available through wholesale agreements.
      c. With wholesale availability, the private sector now has better opportunity to serve Iowans.

v. Summary: ICN provides a wholesale asset (bandwidth) that private sector can access which provides them better opportunity to provide broadband services. There would need to be legislative action to change the code to allow wholesale activities if this proposal were to move forward. Will need to define who the wholesale user could be. There are already state procurement processes in place that do this.

   1. Have an opportunity to repurpose ICN
   2. Will enable private sector to develop new revenue opportunities
   3. Foster economic and broadband development throughout Iowa
   4. ICN's authorized user base will remained unchanged, but private sector's user base may increase
   5. Empowers STEM Broadband Committee with actionable legislation
   6. Provides an opportunity to strengthen relationship between government and the private sector in public/private partnerships

7. Establishes an open network provider in the state to provide the benefit to private sector and still ensure that ICN will still provide critical infrastructure available to Iowans.

Q & A / Comments:

Howsare: Is this proposal totally new, or repackaged idea?
Lumbard: There have been a couple of versions, but have been talking about ICN 2.0 for a couple of years.
Howsare: What has held this back?
Lumbard: 1) Lack of communication of ICN and its purpose, there is a myth around that the ICN is antiquated, and that is not the case; 2) natural competitive fear that government network will take away business from private sector. Do not believe either of these two items is accurate.

Duncan: Have any local exchange carriers come to ICN indicating interest in a proposal like this?
Lumbard: Yes, but they've had to decline access, counties and non-profits as well.
Duncan: Specifically, have any local exchange carriers come forward?
Lingren: Have had independent telephone companies ask to use the ICN backbone. Can provide names if needed.

Duncan: Would like further understanding of how we can have a state subsidized supply of excess capacity of bandwidth put onto the market in such a way that it does not compete with what's already on the private market.   Wouldn't this have an impact on the market, and what checks and balances should be in place to ensure this isn't competing with the private sector?
Lumbard: This is the legacy conversation, and some concepts of being 'state subsidied' needs to be discussed, but at another time. What is being offered is not ICN services, rather, allowing private sector access to frequencies and paths that we don't serve, not what we are now offering to private sector. Can look at this a couple of ways – it's true it might disrupt a business model because there would be an increase of an asset, but would rather term it as 'augment' or a complement because it gives availability. It is an asset that wasn't there. This would cause a shift in economic development, but maybe the question should be 'Is this bad?'.

Duncan: Referring to comment about an asset that isn't already there, where is 'there'? It comes down to location – are you in an area with existing fiber and taking a look at that and figuring out if that correlates with the goals of the committee, that is to help serve underserved areas. Is there some correlation to points where this might be available and then aligning them with areas underserved, rather than saying we are just going to provide the ICN's excess capacity everywhere and see what happens.
Lumbard: Correct that we don't know where ICN overlays existing infrastructure, but we do know there are places where there are voids, but where applicable, why can't it be used?
Lingren: The ICN is much less tax subsidized than most telephone companies due to USF. ICN receives no general fund support, but doesn't have to pay taxes, however ICN is providing services to tax paying entities. Regarding underserved areas, the Connect Iowa map shows base broadband and is very different from the map that would show high speed broadband. For economic development we need to

look at high-speed access. ICN has assets to take an area from base to high-speed broadband. For example, in Ottumwa the local exchange carrier has fiber going only one location, their central office. ICN has fiber going to the AEA, the community college, National Guard, courthouse and hospital. It is many times more cost effective to build from multiple points within a community than it is from one. We think it would assist a telephone company to have multiple points to build out from.

Sadler: This has been looked at a couple of times, and our network people didn't find a lot of areas where there might be opportunities to partner, but appreciate the proposal is on the table, and further discussion is warranted.

Carver: Appreciate the presentation, and realize there are concerns about competition and other issues. Good to start the discussion even if this has been discussed in various versions before with no movement. Bottom line, there needs to be compromise, trust has to be built, and we need to get past the deadlock for economic development, for education, there must be robust, reliable broadband throughout the state.

b. Eric Mills and Tom Ferree, Connected Nation (See also, posted PPT presentation)

Ferree provided overview of Connected Nation, with the mission to harness the power of technology to energize the nation's economy, impact communities and improve lives focusing on the broadband technologies surrounding access, adoption and use. To do that, mission is aligned across the organizing principals of connected communities, connected learning, and connected insights. Discussed the Connected community engagement program, which is offered through Connect Iowa and is designed to lead communities, utilizing a community team made up of a variety of stakeholder sectors, (library, local government, education, healthcare, etc.) through a broadband assessment process to identify broadband opportunities and challenges, and provides technology action items that can be put into place to help bolster opportunities and mitigate barriers to growth. Also discussed Edified, a program that targets the education sector and provides several services including 1:1 device program logistics and planning, professional development for teachers to ensure they are able to effectively utilized the broadband tools available to them and product trials

Mills presented on the Digital Works program. Digital Works is a program that connects people with jobs, using technology primarily focused around broadband and tele-workforce opportunities. It includes three elements:
  i. State and community partnerships: States and communities to bring resources and people who are unemployed, underemployed, lack digital skills, and those looking for personal growth.
  ii. Digital skills learning program: Opportunity is open to all, do not need to be digital literate. Program screens potential job candidates, provides training, mentoring, with opportunity to partner with existing state programs. Job candidates can be working 60 days after location is open. Entry-level skills positions with goal to move up to middle-level skills and beyond if willing.

iii. Employer marketing and sales effort. Program works with companies, in-state if possible, to identify jobs, many of which may currently be outsourcing to different countries. Companies find value in the job candidates as they are qualified, skilled workers.

Proposing as a possible solution for Iowa and program has been modeled after proven pilot in Perry County Tennessee. Perry experienced 27% unemployment in 2009 after a plant closing. Community worked with Connected Tennessee to implement program pilot. In next two years, unemployment rate dropped by 10% and over 100 jobs were created. Have now expanded program to Ohio, and are evaluating programs in Texas, Michigan, Kentucky and possibly Iowa. Beyond program, this is a catalyst for local growth. Focuses on digital skills development, a subset of community planning efforts (Connected), and allows the community planning to have focus for economic development that translates to impact in real-time.

Q & A / Comments:

Duncan: This directly addresses two of the metrics on the TechNet Index – Adoption and economic structure. Under economic structure, specifically it addresses the types of jobs outlined under this component – those related to broadband.

Groner: What is the process for bringing the Digital Works program into a state?
Mills: Look at a critical mass investment by the state through either legislative action or some type of partnership with an existing entity. We look at three items: 1) Facilities in the communities - communities can contribute empty storefronts, provide desks, etc. and turn it into a Digital Works center; 2) Program support to build and bring in our state program. This is a sustainable program because long-term, this will be a skills development program where employers will pay us to deliver the talent they need. We can't start that way, but sustainably we expect to build that way. To get started though, it will take public investment; 3) Building the employer base for the jobs necessary.

Howsare: This would be something that Workforce does in cooperation with community colleges, doesn't seem like we need new legislation, so maybe you are at the wrong group. Have you contacted the community colleges?
Mills: We are not asking for legislative change. We view Workforce as an important partner and not looking to become a new educational program. We attempt to build an essential skills level, and then look to community colleges and others to bring in the curriculum.
Howsare: Have you talked to the community colleges?
Mills: No, we just had our initial conversation this morning.
Howsare: I would encourage you to meet with them. They have the infrastructure, they develop the partnerships with K-12, regional academies, where this would be a natural fit as another component to broaden that.

Carver: One challenge in Iowa is that our population is shrinking. Our educational system is producing kids that are finding opportunities outside of the state, so for massive unemployment, you won't find that in Iowa. Challenge is getting people to move to Iowa and retaining graduates. Also, you are correct that Des Moines is the center of the insurance industry, so part of the drive is to find employment

opportunities so people can telework and don't need to leave home and rural Iowa, but not sure you will be able to find enough candidates looking for call center jobs, rather Fortune 500 jobs.

Mills: Recognizes that there won't be a silver bullet answer, but if you look at a community where people may not realize the value of technology or why they should build digital skills, it just takes a few examples to be that initial catalyst to begin finding value and building success.

Sadler: Have you seen practices in other states that could help Iowa increase adoption rates?
Mills: There are a number of national policy initiatives on broadband adoption, with several white papers on E-Rate and other on our website. Provides a thorough critique on why adoption is important. Also, it takes strong leadership to realize the value of adoption. Being willing to open the doors to discussion is key. Looking at national trends, USF reform, Connect America Fund, encourage providers to take advantage of the programs, realizing that not everyone is happy with the changes, but changes are coming so being open to talking about next steps. Also embrace innovative technology programs in schools – it's not just the connectivity or device, but the applications that encourage use.
Ferree: On a national scope, relevance and cost are still the two biggest barriers to adoption, so well-connected libraries is a great first step, but also, embracing technology uses in schools.

VI.   Public Comments:

Sue Shipitalo: Citizen of Iowa and advocate for digital literacy. Thought the first discussion on infrastructure was very important. As a taxpayer, when BTOP funds were employed this was exactly the type of conversation the federal government envisioned, that we leverage the resources we have. Secondly, Iowa has an aging and rural population and increasing immigrant population. I advocate using existing resources, particularly libraries and schools, to create adoption programs in those areas. There is a good library system, but not all are well-connected. There should be public access in all communities, and a resource where people can find those access points. It's important that people have access with what we have right now, as well as looking to the future. I would recommend legislatively, would like to see public libraries funded for a digital advocate in each county.

Randall: Wanted to elaborate on how we provide services to schools through the AEA. All traffic from schools comes in from a single line, and passes through the equipment at AEA and out to the Internet through another ICN circuit. This allows us to offer cost effective services such as filtering, firewalls, etc. It is an efficient model. We'd like to see an increase and expansion of bandwidth to existing districts and also to schools in underserved and unserved areas. The public/private partnership is very important in the education sector. Equity is often an issue, so offering the same service and cost to all is desired, and something that has worked through the ICN connections as we can predict costs and what it costs to upgrade. We have connections into the district, but use the same model to reach the middle and elementary schools, so AEA's can continue to serve all schools with services and expertise that many schools can't afford on their own.

VII.   Next Steps:

Carver: This concludes the public presentations. Going forward, members need to review information received, to begin building recommendations. Carver will create a Google Doc as a working doc to start drafting emerging

themes. Committee members are to add comments prior to the next meeting on the 19th. The 19th will be a work session to pare comments. Once we have narrowed focus, we will begin drafting policy. On or before Nov. 23 the committee will be reviewed and finalized. After that, final draft will be made for delivery. All recommendations will be posted to the website.

VIII.   Adjourn